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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

VUONG, BACH Q

ART UNIT PAPER NUMBER

2653

DATE MAILED: 04/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/943,102

Applicant(s)

SHELTON ET AL.

Examiner

Bach Q. Vuong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-9 and 19 is/are allowed.
- 6) ☒ Claim(s) 10, 11, 14-18 and 20-22 is/are rejected.
- 7) ☒ Claim(s) 12, 13 and 23-26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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This communication is responsive to an amendment filed on 11/10/2004

The indicated allowability of claims 6-26 is withdrawn in view of the newly discovered reference(s) to Sugita et al. (US 5,268,803). Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 10, 11, 14-18 and 20-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Sugita et al. (US 5,268,803).

Sugita et al., according to Figs. 1-3, shows a storage medium having a plurality of tracks, comprising all features in the claimed invention as interpreted below:

Regarding claim 10, see Figs. 2 and 3 which show a storage medium having a plurality of tracks, comprising: a plurality of data sectors on each track (see column 2, lines 19-55) ; a plurality of servo sectors on each track (see column 2, lines 19-55 and further see servo sector in Fig. 3); each servo sector comprising a first location (see First burst signal BX) and a second location (see second burst signal BY) for a reset mark, wherein if the reset mark is located in the first location the reset mark has a first value, and if the reset mark is located in the second location the reset mark has a second value, and the values of reset marks of the plurality of servo sectors of a track represents a track number (see the respective disclosure of Figs. 3 for details).

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Regarding claim 11, see Figs. 2 and 3 which show a storage medium having a plurality of tracks wherein a selected servo sector on each track comprises an index mark (see index in Fig. 3) for indicating a circumferential position of the storage medium, the index marks aligned substantially radially on the storage medium.

Regarding claim 14, see Fig. 3 which shows a storage medium having a plurality of tracks wherein the plurality of servo sectors comprises: a plurality of first servo sectors (see burst BX) on each track, each first servo sector having a first length; and a plurality of second servo sectors (see burst BY) on each track, each second servo sector having a second length, the first length being different from the second length (see servo sector in Fig. 3 for details).

Regarding claim 15, see Fig. 3 which shows a storage medium having a plurality of tracks, comprising: a first servo sector on a selected track comprising: a first wobble bit, the center of the first wobble bit located proximate to a first track (see burst BX and track TC 6); a second wobble bit, the center of the second wobble bit located proximate to a second track, the second track adjacent to the first track, and the center of the second wobble bit offset circumferentially along the second track from the center of the first wobble bit (see burst BY and track TC 5); and a second sector comprising: a third wobble bit, the center of the third wobble bit located between the first track and the second track (see BB is between tracks TC 6 and TC 5); and a fourth wobble bit, the center of the fourth wobble bit located between the second track and a third track, the third track being adjacent to the second track (see BA is between tracks TC 5 and TC 4).

Regarding claim 16, Fig. 2 which show a storage medium further comprising: a plurality of first servo sectors on each track, each first servo sector having a first length;

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and a plurality of second servo sectors on each track, each second servo sector having a second length, the first length being different from the second length.

Regarding claim 17, see Figs. 2 and 3 which show a storage medium wherein each servo sector comprises a first location and a second location for reset mark, wherein if the reset mark is located in the first location the reset mark has a first value, and if the reset mark is located in the second location the reset mark has a second value, and the values of reset marks of the plurality of servo sectors of a track represents a track number (see the rejection applied to claim 10).

Regarding claim 18, see Fig. 3 which shows a storage medium wherein each servo sector comprises: a reset mark indicating the beginning of a servo sector; a synchronization mark for synchronization of a reading device; and a gap between the reset mark and the synchronization mark, the gap having no servo marks (see reference signal E).

Regarding claim 20, see Figs. 1-3 which show a method for aligning a reading device with a track of a storage medium (see disc 6 in Fig. 3) having a first a first servo sector with a first set of wobble marks and a second servo sector with a second set of wobble marks, the method comprising: reading a first signal from the second set of wobble marks in the second servo sector; reading a second signal representing a location of the reading device with respect to the track; determining a third signal based on the first and second signal; and repositioning the reading device based on the third signal (see column 2, line 17 through column 4, line 60).

Regarding claims 21-22, see Figs. 2 and 3 which show a method for aligning a reading device with a track of a storage medium wherein determining a third signal

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comprises averaging and performing a weighted average of the first and the second signal (see first burst signal BX and second burst signal BY).

Allowable Subject Matter

Claims 12, 13 and 23-26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 12 and 13 are allowable over prior art of record because all the cited references, considered as closest prior art and viewed considered in combination or individual, fails to suggest or fairly teach a storage medium and a disk drive for reading data from a storage medium including all features as recited in each of claims 12 and 13.

Claims 23-26 are allowable over prior art of record because all the cited references, considered as closest prior art and viewed considered in combination or individual, fails to suggest or fairly teach a method for aligning a reading device with a track of a storage medium including a combination steps of all features as particularly recited in each of claims 23-25. Claim 26 falls with its respective parent claim.

Claims 6-9 and 19 are allowed over prior art of record because all the cited references, considered as closest prior art and viewed considered in combination or individual, fails to suggest or fairly teach a storage medium and a disk drive for reading data from a storage medium including all features as recited in each of claims 6 and 19. Claims 7-9 and fall with their respective parent claim.

Response To Arguments

Applicant's arguments with respect to claimed invention have been considered but are moot in view of the new ground(s) of rejection.

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Cited References


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited reference relates to servo format for disk drive data storage devices.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bach Q. Vuong whose telephone number is (571) 272-7596. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on (571) 272-5789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BV
April 15, 2005


THANG V. TRAN
PRIMARY EXAMINER